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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/546,031	04/10/2000	Christopher Keith	0505-4001	3070

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EXAMINER
GRAHAM, CLEMENT B

ART UNIT	PAPER NUMBER
3628	

DATE MAILED: 10/20/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

	Application No.	Applicant(s)
Office Action Summary	09/546,031	KEITH, CHRISTOPHER
	Examiner	Art Unit
	Clement B. Graham	3628

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *30 June 2003*.

2a) ☒ This action is **FINAL**.   2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-16* is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-16* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a) ☐ All   b) ☐ Some * c) ☐ None of:

      1. ☐ Certified copies of the priority documents have been received.

      2. ☐ Certified copies of the priority documents have been received in Application No. _____.

      3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)

2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
    Paper No(s)/Mail Date _____.

4) ☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5) ☐ Notice of Informal Patent Application (PTO-152)

6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness

rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in
> section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are
> such that the subject matter as a whole would have been obvious at the time the invention was made to a person
> having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the
> manner in which the invention was made.

2.   Claims 1-16, are rejected under 35 U.S.C. 103(a) as being unpatentable over Keiser et al,

U.S Patent 6, 505, 174 in view Korhammer et al (Hereafter Korhammer U.S Patent 6,278,

982).

As per claim 1-3, Keiser discloses a method of providing a published price for a

security comprising: notifying (i. e, displays instruments") a set of computers (i. e, plurality of

client computers") of a proposed price for buying or selling a pending number of shares of a

security, and a computer. (Note abstract and see column 2 lines 57-67 and column 3 lines 1-

28).

Keiser fail to explicitly teach determining whether any of the entities has offered

an improved price, and providing the improved price as the published price, wherein the

notifying, determining and providing and are performed by a program executing.

However Korhammer discloses at trading terminal, the customer may filter and/or

customize the data displayed based on trading preferences. These features allow the

customer to remove orders that are less desirable and view the data in a format

optimized for their trading activity. As an example, a customer may specify a minimum

quantity for a bid or offer to be displayed. As another example, the customer may

customize the display by specifying a minimum price granularity (the smallest allowable

increment) for displaying bids or offers (i.e. such as 1/32 of a dollar), which will cause

prices with greater granularity to be rounded as appropriate and FIG. 4 depicts a typical

market data screen of the present invention. Such screens can be customized as to

data or order to conform to the customer's trading style. Here the customer 10 has

elected to receive only NASDAQ 52 data by failing to check ECN election box. Thus,

screen nly displays NASDAQ level I & II information. The security under review is Dell
Computer Corp. It was elected by inserting its ticker symbol DELL in space. NASDAQ
Level I information is displayed at the top of screen including the last trade price, an
arrow indicating the current movement of the highest bid, the net change of the last
trade price with respect to yesterday's closing price, the volume of the last trade, the
high and low trade prices for the day, and the total volume traded for the day. Each
screen also contains bid and offer data. The bids are sorted in descending order by
price, and the offers are sorted in ascending order by price. For each quote, the
following information is displayed: volume in 100's of shares, the four-character
identification of the market maker or ECN, and the price. A * character is used to show
the most recently updated quote. The grayed entries indicate the highest bid and of
three ECNs Island (ISLD), Instinet (INCA) and Strike (STRK) and the lowest offer, and
of Instinet, Island and Strike. Thus, the latest offer for Dell was made by the market
maker SHWD, that is Sherwood Securities, which offered to sell 1000 shares at 397/16.
Screen shows no more than pricing information currently available from NASDAQ Level
II service. (Note abstract and see column 8 lines 28-38 and lines 48-67 and column 9
lines 1-8).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention
was made to modify the teachings of Keiser to include determining whether any of the entities
has offered an improved price, and providing the improved price as the published price,
wherein the notifying, determining and providing and are performed by a program executing
taught by Korhammer in order to trade and analyze selected securities and aggregates and
integrates securities trading information and order placement from various trading systems.

As per claim 4-5, Keiser receiving a plurality of improved prices from respective
ones of the entities during the predetermined interval, and selecting the best of the
improved prices as the published price.(Note abstract and column 6 lines 45-65 and
column 27 lines 10-25).

As per claim 6, Keiser disclose deciding to offer a proposed price when a current
book price is different than a most recent trade price.(See column 11 lines 40-65).

As per claim 7, 10-11,   Keiser a method of participating in pricing of security comprising: receiving a proposed price for a pending number of shares of the security and a computer. (Note abstract and see column 2 lines 57-67 and column 3 lines 1-28).

Keiser fail to explicitly teach determining whether to improve upon the proposed price, and when the determination is affirmative, offering an improved price and wherein the receiving determining and offering are performed by a program.

However Korhammer discloses at trading terminal, the customer may filter and/or customize the data displayed based on trading preferences. These features allow the customer to remove orders that are less desirable and view the data in a format optimized for their trading activity. As an example, a customer may specify a minimum quantity for a bid or offer to be displayed. As another example, the customer may customize the display by specifying a minimum price granularity (the smallest allowable increment) for displaying bids or offers (i.e. such as 1/32 of a dollar), which will cause prices with greater granularity to be rounded as appropriate and FIG. 4 depicts a typical market data screen of the present invention. Such screens can be customized as to data or order to conform to the customer's trading style. Here the customer 10 has elected to receive only NASDAQ 52 data by failing to check ECN election box. Thus, screen nly displays NASDAQ level I & II information. The security under review is Dell Computer Corp. It was elected by inserting its ticker symbol DELL in space. NASDAQ Level I information is displayed at the top of screen including the last trade price, an arrow indicating the current movement of the highest bid, the net change of the last trade price with respect to yesterday's closing price, the volume of the last trade, the high and low trade prices for the day, and the total volume traded for the day. Each screen also contains bid and offer data. The bids are sorted in descending order by price, and the offers are sorted in ascending order by price. For each quote, the following information is displayed: volume in 100's of shares, the four-character identification of the market maker or ECN, and the price. A * character is used to show the most recently updated quote. The grayed entries indicate the highest bid and of three ECNs Island (ISLD), Instinet (INCA) and Strike (STRK) and the lowest offer, and of Instinet, Island and Strike. Thus, the latest offer for Dell was made by the market

maker SHWD, that is Sherwood Securities, which offered to sell 1000 shares at 397/16.
Screen shows no more than pricing information currently available from NASDAQ Level
II service. (Note abstract and see column 8 lines 28-38 and lines 48-67 and column 9
lines 1-8).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention
was made to modify the teachings of Keiser to include determining whether any of the entities
has offered an improved price, and providing the improved price as the published price,
wherein the notifying, determining and providing and are performed by a program executing
taught by Korhammer in order to trade and analyze selected securities and aggregates and
integrates securities trading information and order placement from various trading systems.

As per claim 8, Keiser disclose comprising registering to receive proposed prices
for trading the security. (See column 2 lines 25-35 and column 21 lines 60-65).

As per claim 9, Keiser disclose receiving a current price, deciding whether the
current price is good enough. (Note abstract and see column 3 lines 15-65 and column
4 lines 5-56 and column 6 lines 45-55 and column 27 lines 10-25). Keiser also disclose
a user must be registered prior to accessing the system.(See column 21 lines 60-65).

As per claim 12, 14-16,   Keiser disclose maintaining an order book including orders
to buy or sell specified quantities of the security at respective prices, the lowest sell
order price of the booked orders being the book sell price, the highest buy order price of
the booked orders being the book buy order price and a computer.(Note abstract and see
column 2 lines 57-67 and column 3 lines 1-28).

Keiser fail to explicitly teach engaging in a price discovery procedure with a set of computer
program entities before responding to a request for a current buy or sell price of the security to
produce an discovered price, and providing the discovered price as the current buy or sell
price, the automatically discovered price being better than the book buy or sell price and
wherein the maintaining engaging and providing are performed by a program executing.

However Korhammer discloses at trading terminal, the customer may filter and/or
customize the data displayed based on trading preferences. These features allow the
customer to remove orders that are less desirable and view the data in a format
optimized for their trading activity. As an example, a customer may specify a minimum

quantity for a bid or offer to be displayed. As another example, the customer may customize the display by specifying a minimum price granularity (the smallest allowable increment) for displaying bids or offers (i.e. such as 1/32 of a dollar), which will cause prices with greater granularity to be rounded as appropriate and FIG. 4 depicts a typical market data screen of the present invention. Such screens can be customized as to data or order to conform to the customer's trading style. Here the customer 10 has elected to receive only NASDAQ 52 data by failing to check ECN election box. Thus, screen nly displays NASDAQ level I & II information. The security under review is Dell Computer Corp. It was elected by inserting its ticker symbol DELL in space. NASDAQ Level I information is displayed at the top of screen including the last trade price, an arrow indicating the current movement of the highest bid, the net change of the last trade price with respect to yesterday's closing price, the volume of the last trade, the high and low trade prices for the day, and the total volume traded for the day. Each screen also contains bid and offer data. The bids are sorted in descending order by price, and the offers are sorted in ascending order by price. For each quote, the following information is displayed: volume in 100's of shares, the four-character identification of the market maker or ECN, and the price. A * character is used to show the most recently updated quote. The grayed entries indicate the highest bid and of three ECNs Island (ISLD), Instinet (INCA) and Strike (STRK) and the lowest offer, and of Instinet, Island and Strike. Thus, the latest offer for Dell was made by the market maker SHWD, that is Sherwood Securities, which offered to sell 1000 shares at 397/16. Screen shows no more than pricing information currently available from NASDAQ Level II service. (Note abstract and see column 8 lines 28-38 and lines 48-67 and column 9 lines 1-8).

Therefore it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify the teachings of Keiser to include engaging in a price discovery procedure with a set of computer program entities before responding to a request for a current buy or sell price of the security to produce an discovered price, and providing the discovered price as the current buy or sell price, the automatically discovered price being better than the book buy or sell price and wherein the maintaining engaging and providing are performed by a program

executing taught by Korhammer in order to trade and analyze selected securities and aggregates and integrates securities trading information and order placement from various trading systems.

As per claim 13, Keiser disclose wherein the price discovery procedure includes providing the book buy or sell price to at least one entity registered to participate in the price discovery procedure.(See column 2 lines 5-65 and column 3 lines 15-65 and column 4 lines 5-56 and column 6 lines 45-55 and column 27 lines 10-25).

<div align="center">Conclusion</div>

3.   Response to Applicant's arguments

4.   Applicant's arguments filed 6/30/03 has been fully considered but they are moot in view of new grounds of rejections..

5.   In response to Applicant's arguments as it pertains to Keiser.

6.   In response to Applicant's arguments the Keiser fail to teach or suggest "notifying a set of computers of a proposed price for buying or selling a pending number of shares of a security, and a computer determining whether any of the entities has offered an improved price, and providing the improved price as the published price, wherein the notifying, determining and providing and are performed by a program executing and receiving a proposed price for a pending number of shares of the security and a determining whether to improve upon the proposed price, and when the determination is affirmative, offering an improved price and wherein the receiving determining and offering are performed by a program and maintaining an order book including orders to buy or sell specified quantities of the security at respective prices, the lowest sell order price of the booked orders being the book sell price, the highest buy order price of the booked orders being the book buy order price and a computer engaging in a price discovery procedure with a set of computer program entities before responding to a request for a current buy or sell price of the security to produce an discovered price, and providing the discovered price as the current buy or sell price, the automatically discovered price being better than the book buy or sell price and wherein the maintaining engaging and providing are performed by a program executing, the examiner disagrees with Applicant's because these limitations are addressed in a combination of teachings as stated,

Keiser discloses a method of providing a published price for a security comprising: notifying i. e, displays instruments" a set of computers i. e, plurality of client computers" of a proposed price for buying or selling a pending number of shares of a security, and a computer. Note abstract and see column 2 lines 57-67 and column 3 lines 1-28 and of participating in pricing of security comprising: receiving a proposed price for a pending number of shares of the security and a computer Note abstract and see column 2 lines 57-67 and column 3 lines 1-28 and maintaining an order book including orders to buy or sell specified quantities of the security at respective prices, the lowest sell order price of the booked orders being the book sell price, the highest buy order price of the booked orders being the book buy order price and a computer. Note abstract and see column 2 lines 57-67 and column 3 lines 1-28.

Korhammer discloses at trading terminal, the customer may filter and/or customize the data displayed based on trading preferences. These features allow the customer to remove orders that are less desirable and view the data in a format optimized for their trading activity. As an example, a customer may specify a minimum quantity for a bid or offer to be displayed. As another example, the customer may customize the display by specifying a minimum price granularity (the smallest allowable increment) for displaying bids or offers (i.e. such as 1/32 of a dollar), which will cause prices with greater granularity to be rounded as appropriate and FIG. 4 depicts a typical market data screen of the present invention. Such screens can be customized as to data or order to conform to the customer's trading style. Here the customer has elected to receive only NASDAQ 52 data by failing to check ECN election box. Thus, screen nly displays NASDAQ level I & II information. The security under review is Dell Computer Corp. It was elected by inserting its ticker symbol DELL in space. NASDAQ Level I information is displayed at the top of screen including the last trade price, an arrow indicating the current movement of the highest bid, the net change of the last trade price with respect to yesterday's closing price, the volume of the last trade, the high and low trade prices for the day, and the total volume traded for the day. Each screen also contains bid and offer data. The bids are sorted in descending order by price, and the offers are sorted in ascending order by price. For each quote, the following information is displayed: volume in 100's of shares, the four-character identification of the market maker or ECN, and the price. A * character is used to show the most recently updated quote. The grayed entries indicate the highest bid and of

three ECNs Island (ISLD), Instinet (INCA) and Strike (STRK) and the lowest offer, and of
Instinet, Island and Strike. Thus, the latest offer for Dell was made by the market maker
SHWD, that is Sherwood Securities, which offered to sell 1000 shares at 397/16. Screen
shows no more than pricing information currently available from NASDAQ Level II service.
Note abstract and see column 8 lines 28-38 and lines 48-67 and column 9 lines 1-8.
It is obviously clear that Applicant's claimed limitations are addressed with in the Keiser
and Korhammer.

7.   Applicant's amendment necessitated the new ground(s) of rejection presented in
this Office action. Accordingly, **THIS ACTION IS MADE FINAL.** See MPEP
§ 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37
CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE
MONTHS from the mailing date of this action. In the event a first reply is filed within
TWO MONTHS of the mailing date of this final action and the advisory action is not
mailed until after the end of the THREE-MONTH shortened statutory period, then the
shortened statutory period will expire on the date the advisory action is mailed, and any
extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of
the advisory action. In no event, however, will the statutory period for reply expire later
than SIX MONTHS from the date of this final action.

8.   Any inquiry concerning this communication or earlier communications from the
examiner should be directed to Clement B Graham whose telephone number is 703-
305-1874. The examiner can normally be reached on 7am to 5pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's
supervisor, Hyung S. Sough can be reached on 703-308-0505. The fax phone numbers
for the organization where this application or proceeding is assigned are 703-305-0040
for regular communications and 703-305-0040 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or
proceeding should be directed to the receptionist whose telephone number is 703-305-
3900.

CG

October 10, 2005

FRANTZY POINVIL
PRIMARY EXAMINER
AU 3628